

RESPONSE TO RESTRICTION REQUIREMENT & PRELIMINARY AMENDMENT

Serial Number: 10/006,292

Filing Date: December 3, 2001

Title: ELECTRONIC ASSEMBLY WITH SANDWICHED CAPACITORS (as amended)

Assignee: Intel Corporation

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Dkt: 884.534US1 (INTEL)

IN THE SPECIFICATION

Please make the paragraph substitutions indicated below. The specific changes incorporated in the substitute paragraphs are shown in the following marked-up versions of the original paragraphs.

The sub-title on page 1, line 8 is amended as follows: Related Application Invention

The paragraph beginning on page 1, line 10 is amended as follows:

The present application invention is related to the following application invention which is assigned to the same assignee as the present application invention and which was filed on even date herewith:

The paragraph beginning on page 1, line 13 is amended as follows:

Serial No. 10/006,188 [(/)], entitled "Capacitor Having Separate Terminals on Three or More Sides and Methods of Fabrication".

The sub-title on page 1, line 16 is amended as follows: Technical Field ~~of the Invention~~

The paragraph beginning on page 1, line 18 is amended as follows:

The inventive subject matter present invention relates generally to electronics packaging. More particularly, the inventive subject matter present invention relates to an electronic assembly that includes an integrated circuit (IC) package having a decoupling capacitance situated between a high performance IC and an IC package substrate for reducing inductance and for providing improved power delivery, and to manufacturing methods related thereto.

The sub-title on page 1, line 24 is amended as follows: Background Information ~~of the Invention~~

The paragraph beginning on page 3, line 19 is amended as follows:

FIG. 1 is a block diagram of an electronic system incorporating at least one electronic assembly with sandwiched capacitors in accordance with an ~~one~~ embodiment of the invention;

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The sub-title on page 6, line 5 is amended as follows: ~~Detailed Description of Embodiments of the Invention~~

The paragraph beginning on page 6, line 7 is amended as follows:

In the following detailed description of embodiments of the inventive subject matter invention, reference is made to the accompanying drawings which form a part hereof, and in which is shown by way of illustration specific preferred embodiments in which the inventive subject matter inventions may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the inventive subject matter invention, and it is to be understood that other embodiments may be utilized and that structural, mechanical, compositional, and electrical changes may be made without departing from the spirit and scope of the inventive subject matter present inventions. The following detailed description is, therefore, not to be taken in a limiting sense, and the scope of embodiments of the inventive subject matter present invention is defined only by the appended claims. Such embodiments of the inventive subject matter may be referred to, individually and/or collectively, herein by the term "invention" merely for convenience and without intending to voluntarily limit the scope of this application to any single invention or inventive concept if more than one is in fact disclosed.

The paragraph beginning on page 6, line 29 is amended as follows:

In an ~~one~~ embodiment, a front surface of an IC is flip-chip mounted to a substrate using "controlled collapse chip connect" (C4) technology, and a large capacitor array is sandwiched between the IC and the substrate, the capacitor having terminals of equivalent pitch to those of the IC and substrate.

The paragraph beginning on page 7, line 22 is amended as follows:

FIG. 1 is a block diagram of an electronic system 1 incorporating at least one electronic assembly 4 with sandwiched capacitors in accordance with an ~~one~~ embodiment of the invention. Electronic system 1 is merely one example of an electronic system in which the present invention can be used. In this example, electronic system 1 comprises a data processing system that

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includes a system bus 2 to couple the various components of the system. System bus 2 provides communications links among the various components of the electronic system 1 and can be implemented as a single bus, as a combination of busses, or in any other suitable manner.

On page 31, line 27, please delete the sub-title "Conclusion".